

REMARKS

In reply to the Office Action dated December 20, 2007, Applicant has amended the abstract of the disclosure to obviate the Examiner's concerns by replacing the term "PMs" with the term --particles--. Applicant also has amended claims 1, 2, and 4-6 to correct minor informalities and clarify the claimed invention. Application further has amended claim 3 to obviate the Examiner's indefiniteness concerns by replacing the term "the porosity" with the term --a porosity--. Applicant still further has canceled non-elected claim 15, without prejudice or disclaimer of the subject matter recited therein. Finally, Applicant has added new claims 16-23 to round out the coverage to which Applicant is entitled. As a result of this Amendment, claims 1-14 and 16-23 are pending.

Applicant appreciates the courteous efforts of the Examiner to expedite prosecution of this application during the personal interview on April 3, 2007. During the interview, the Examiner suggested that the prior art of record does not appear to explicitly disclose or suggest a first catalyst support that is arranged along an inside surface of the pores of the filter cellular walls. The Examiner also suggested that the prior art of record does not disclose or suggest a second catalyst support that partially covers a first catalyst support. The Examiner further suggested that the prior art of record does not appear to disclose or suggest that the second catalyst support has a thickness greater than the thickness of the first catalyst support.

In light of the Examiner's suggestions, Applicant has amended independent claim 1 to clarify the claimed invention. For instance, Applicant has amended this claim to recite that the first catalyst support is "arranged along the inside surface of the pores of

the filter cellular walls.” Applicant also has amended this claim to recite that the second catalyst support is “arranged in the pores of the filter cellular walls so as to partially cover the first catalyst support.” Applicant further has added new claims 16-23 to round out the coverage to which Applicant is entitled.

As set forth on pages 3-5 of the Office Action, the Examiner rejected claims 1-14 under 35 U.S.C. § 103(a) as being unpatentable over Higuchi (U.S. Patent No. 4,340,403) in view of Tonkovich et al. (U.S. Patent Publication No. 2003/007904), and further in view of Chen (U.S. Patent Publication No. 2003/0021745). Applicant respectfully traverses this ground for rejection.

Higuchi discloses a ceramic honeycomb filter having “excellent heat resistivity and a larger filtering area” for removing floating fine particles from exhaust gas. See Abstract and Field of the Invention. As discussed during the interview, however, Higuchi fails to provide any disclosure of “a honeycomb structure including . . . a catalyst layer formed on the filter cellular walls and on the inside surface of the pores” of such “filter cellular walls,” as recited in independent claim 1. As the Examiner acknowledged during the interview, Higuchi also fails to disclose or suggest a first catalyst support, which is arranged along the inside surface of the pores of the filter cellular walls, and a second catalyst support, which is arranged in the pores of the filter cellular walls so as to partially cover the first catalyst support, as further recited in independent claim 1. Similarly, Higuchi fails to disclose or suggest a first layer, which is arranged to coat an inside surface of the pores of a honeycomb structure, and a second layer, which is arranged to partially cover the first layer, as recited in greater detail in new independent claim 17. Instead of teaching these features of claims 1 and 17,

Higuchi discloses that “[i]n the case of the catalyst carrier, suitable catalyst is coated on the thin partition walls of numerous channels” Col. 1, ll. 44-46. Higuchi, therefore, fails to disclose that such a “suitable catalyst” is formed on the inside surfaces of certain pores of a honeycomb structure, as required by independent claims 1 and 17. Accordingly, Higuchi cannot render independent claims 1 and 17 unpatentable.

Moreover, as the Examiner acknowledged during the interview, Tonkovich et al. fails to remedy the deficiencies of Higuchi. For instance, the Examiner relies upon Tonkovich et al. to disclose the existence of a “honeycomb/(porous support) having pores of an average pore diameter of from 20 to 40 μm and having a porosity of 60-80%.” See Outstanding Office Action at page 3. But Tonkovich et al. lacks the other teachings missing from Higuchi. Modifying Higuchi with Tonkovich et al. thus cannot overcome the shortcomings of Higuchi discussed above.

Finally, as the Examiner conceded during the interview, Chen fails to supply the claim features missing from Higuchi and Tonkovich et al. Specifically, Chen discloses a catalyst in which a second catalytic layer comprising SO_x sorbent component is formed on an upper layer of a first catalytic layer on which Pt is loaded. Chen, however, fails to disclose or suggest a catalytic layer that is formed on the inside surfaces of certain pores of a honeycomb structure, as required by independent claims 1 and 17. Nor does Chen disclose or suggest either a second catalyst support that partially covers a first catalyst support, as required by independent claim 1, or a second layer that partially covers a first layer coated on the inside surface of the pores of the honeycomb structure, as required by independent claim 18. Modifying Higuchi and Tonkovich et al. with Chen thus cannot suggest the claims under 35 U.S.C. § 103(a).

Accordingly, Higuchi, Tonkovich et al., and Chen cannot render independent claim 1 unpatentable.

For at least these reasons, Higuchi, Tonkovich et al., and Chen fail to disclose or render obvious each and every element recited in independent claims 1 and 17. In addition, claims 2-14, 16, and 18-23, which are each dependent upon independent claims 1 and 17, respectively, recite additional features that are neither disclosed nor suggested by each of the applied references, taken either alone or in combination. Since each of the dependent claims not only include the same limitations as independent claims 1 and 17, but also recite these additional limitations, they are allowable for at least the same reasons discussed above with respect to independent claims 1 and 17.

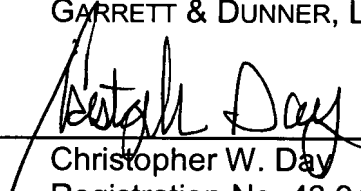
In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration of this application and the timely allowance of all the elected claims 1-14 and 16-23. Should it be necessary to resolve any additional concerns and expedite the issuance of a Notice of Allowance, the Examiner is invited to contact Applicant's representative at (202) 408-6052.

Please grant any extension of time to the extent required to enter this response and charge any fees required to our Deposit Account No. 06-0916.

Respectfully submitted,

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Attachments: Appendix A: Clean Version of Amended Abstract